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ABSTRACT

This report analyzes the early academic achievement of disadvantaged students admitted to the Special Educational Opportunities Program (SEOP) at the Champaign-Urbana campus of the University of Illinois. Overall gradepoint averages and grades in 3 new courses established in rhetoric, psychology, and mathematics are examined. Both criteria are compared with customary preadmission indices, high school percentile rank and standardized ability and achievement test measures. In the study, test scores were found to be more valid for predicting the first term GPA of SEOP students than for regular students; the predictive effectiveness of high school percentile rank was greater for regular students. Two major recommendations are made for future consideration: (1) expansion of recruitment efforts should be made so that greater numbers of SEOP applicants can be screened on the basis of ability measures; and (2) the use of standardized achievement test measures should be increased for placement into and for proficiency out of remedial coursework. (Author/HS)

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THE EVALUATION OF A SPECIAL EDUCATIONAL OPPORTUNITIES PROGRAM FOR DISADVANTAGED COLLEGE STUDENTS

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June 1971

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John Bowers

University of Illinois at Urbana-Champaign

Urbana, Illinois 61801

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SUMMARY

This report analyzes the early academic achievement of disadvantaged, mainly black, students admitted to the Special Educational Opportunities Program (the SEOP) at the Champaign-Urbana campus of the University of Illinois in the fall of 1968 and 1969. Overall grade point averages and grades in three new courses established in Rhetoric, psychology, and mathematics are examined. Both types of criteria are related to customary preadmission indices, high school percentile rank and standardized ability and achievement test measures. Also, the predictability of performance for SEOP and regularly admitted freshmen are compared by means of regression analyses.

High school percentile rank and standardized test scores predicted the early overall academic performance of SEOP students. Validities, though significant, were not high and were possibly attenuated by use of too difficult test instruments and by inflated grading practices. Nevertheless the data indicate that recruitment should not abandon customary merit selection based upon these types of measures. Test scores were found to be more valid for predicting the first term GPA of SEOP students than for the prediction of GPA for regularly admitted students; the predictive effectiveness of high school percentile rank was greater for regularly admitted students.

Special or restructured coursework in the three content areas tended to be characterized by grade inflation. Grades in regular coursework taken immediately after the special coursework were typically lower.

Two major recommendations are called for. First, expansion of recruitment efforts so that greater numbers of SEOP applicants can be screened on the basis of ability measures. Second, the use of standardized achievement test measures for placement into and for proficiency out of remedial coursework.

These two recommendations appear likely to be the quickest methods to insure the admission of the ablest candidates within the disadvantaged population to a moderately selective public university and to remove faculty bias from grading in order to develop an acceptable retention policy for those who are admitted.

I. INTRODUCTION

A. The Special Educational Opportunities Program

1. General Objectives

The University of Illinois at Champaign-Urbana first admitted students to its Special Educational Opportunities Program (SEOP) in September, 1968. Through the SEOP, the University opens educational opportunities to disadvantaged students residing in Illinois who would otherwise probably not gain access to college. The SEOP simultaneously increases minority student (especially black student) enrollment on the Urbana campus, and seeks to develop educational practices and policies designed to assist and to support such students. The University also views the SEOP as an educational enterprise that can yield information for institutional self-study and for dissemination to other institutions of higher education planning college programs for disadvantaged students.

There are no SEOP majors and the SEOP does not grant degrees. Rather, it is a set of equal opportunity supportive services. These supportive functions are both academic and administrative.

2. Interventions

a. Academic

Several departments have initiated special or restructured courses for students entering the University through the SEOP and have provided additional tutorial staff for these students. Graduate students also work with SEOP students and refer them to tutors in the several academic departments. These restructured courses include special sections of freshmen-year Rhetoric 101 and 102, the traditional Rhetoric courses, and Rhetoric 103, a writing laboratory; Mathematics 101, a new course in basic mathematics; Psychology 105, a one-semester course in general psychology; special sections of Latin 101 and 102, first-year courses in Latin; special sections of General Engineering 103; Chemistry 100. Furthermore, a "block program" in the College of Education has been developed to train students in teaching at the elementary and secondary school level.

b. Counseling

The Psychological and Counseling Service has directed its attention to the assessment of each student's abilities and interests, has expanded its professional counseling staff to meet with SEOP students, and has expanded its reading clinic.

At the present time, a self-counseling manual is being prepared to assist SEOP beginning freshmen candidates in planning their first-year academic programs. Interest measures and the Survey of Interest inventory developed by the Psychological and Counseling Service (Gilbert, W. and Ewing, T., 1968) as well as ability measures are used as a basis of self-counseling recommendations.

c. Administrative

Administrative support mainly includes financial aid and lowered admissions standards. Nearly all students entering the SEOP as beginning freshmen meet minimum entry requirements; each applicant must satisfy the published high school pattern requirement for the college and curriculum of his choice, and he must satisfy the published rank in class and test score combination validated within the present SEOP population. Obviously, such a validation basis was impossible for the admission of the first SEOP group that entered in the fall of 1968, but has been applied subsequently. As in all admissions procedures, a small fraction of students who do not satisfy these requirements has been admitted with concurrence of the Dean of the college and the Director of Admissions and Records when supportive evidence from recruiters or from high school instructors or counselors appears to justify admission.

All SEOP students must qualify for a federal Educational Opportunity Grant or must be at least $1,200 short of a year's expenses at the Urbana-Champaign campus. Financial aid is available in three forms: (1) non-repayable grants and scholarships, such as the Educational Opportunity Grant and Illinois State Grant Award; (2) loans, such as the National Defense Education Act loan, repayable over a ten-year period at a lower interest rate after a student graduates or leaves school; (3) limited student employment, which is not encouraged. Students in the SEOP may also, of course, qualify for other types of University scholarships, and some supplementary aid is available from faculty and student contributions to the Martin Luther King, Jr. fund.

B. Constraining Factors

1. Disadvantage and Educational Preparation

The University of Illinois operates, as do all institutions of higher education, within the political, economic, and social context of the larger society. In the larger society, economic disadvantage is correlated with educational handicap. Thus academic and administrative intervention is necessary if students entering the SEOP are to successfully progress toward their degrees. This primary SEOP objective -- graduation, and not merely admission -- must be realized within the structures

of the present admissions and instructional system at Urbana-Champaign.

The SEOP admissions quota must be sizeable, since pressures for some form of open admissions or equal access for disadvantaged minority group students continue. Educationally, a non-trivial number of SEOP students who enter the program must eventually graduate. In a highly selective university such as the University of Illinois, economic support will not alone guarantee graduation for most SEOP students. Active academic intervention is also necessary, since students entering the SEOP will be competing for grades with students admitted through highly selective regular channels.

2. Regular University of Illinois Selection

Admissions practices at the Urbana-Champaign campus have become more selective in the past few years. Currently, most beginning freshmen candidates for admission to the University of Illinois are accepted on the basis of their rank-order, within the college to which they apply, on a weighted combination of high school percentile rank (HSPR) and Composite score of the American College Test (ACT). The all-campus mean Composite score on the American College Test has risen from 24 for beginning freshmen entering in 1962 to 26 for beginning freshmen admitted in 1969. During the same period, mean high school percentile rank rose from 74 to 85. Some colleges, especially the largest, College of Liberal Arts and Sciences, have become even more selective.

3. The Rationale for Using the Selection Equation

These two preadmission variables used for selecting beginning freshmen have been dependably predictive for many years of the first semester grade point average of regularly admitted beginning freshmen at Urbana-Champaign. Though predictive validities have declined over the period of the past few years, this appears mainly due to increased selectivity and changes in the first semester's grade point average distribution (Bowers, J.E. and Loeb, J., 1970). Standard errors of estimate for the first term grade point average have remained essentially stable during this period of increased selectivity.

C. Standardized Test Scores and SEOP Selection

1. Potential Selective Efficiency

That the college performance of regularly admitted freshmen continues to be predictable from the linear combination of test scores and high school percentile rank justifies, from an institutional point of view, this procedure for admitting freshmen to regular university programs. It is necessary to

demonstrate that scores on the ACT or other standardized tests and that high school percentile rank are also valid for predicting the early college achievement of freshmen admitted to the SEOP if these measures are proposed for use in recruitment and selection practices for admitting SEOP students. It is not necessary to demonstrate that the regression equations of first semester grade point average on HSPR and standardized test scores are identical for the SEOP and regularly admitted students, but only that these preadmission measures are valid predictors of success within both populations. Since admissions standards and the early instructional systems differ for both types of admitted freshmen, it would be surprising if their regressions were similar.

2. Resistance to the Use of Test Scores

There has been widespread reluctance to use standardized test scores in prediction equations applied for the selection of disadvantaged and black students to college. Part of this resistance takes the form of attacks on "culturally biased" test instruments. A valid regression equation describes to a significant degree the underlying system to which it applies; success or failure is reflected by and not the result of the equation. If measured ability traits are relevant to success in college and are also relevant to achievement and success in the wider society, then these tests are socially valuable because they assist in identifying those more apt to find an appropriate educational and vocational niche for their abilities through higher education.

An accumulating body of evidence overwhelmingly indicates that similar predictive validities for commonly used college ability tests are found for black and white freshmen (Munday, 1965; Biaggio, 1966; Cleary, 1968; Davis, Loeb & Robinson, 1969). These and other studies have been thoroughly discussed in a recent article by Stanley (1971). In Thomas and Stanley's (1969) review of this question, they concluded that "on the contrary, academic aptitude and achievement-test scores are often (relative to high school grades) better predictors of colleges grades for black than they are for whites. p. 214". The position of the writer is that from an institutional point of view, if a regression model is valid, it can be used for efficient selection and increased institutional and individual payoff. Given a subset of applicants selected from a wider applicant pool, a greater proportion of students are expected to graduate when the selection equation is used for admissions than when it is not.

Furthermore, regression analysis of inputs and outcomes in a new educational program can be especially valuable when it enables us to learn whether intervention has produced intended or desireable outcomes.

2. The Need for Re-examination

When a new program for disadvantaged students is introduced within an existing educational system, questions dealing with the selection and with the guidance and the retention of college students need to be re-examined. The introduction of restructured freshman year coursework for SEOP students certainly changes customary criteria of early academic achievement. New coursework also begs the question of whether standardized test scores and high school percentile rank are valid for academic prediction purposes. Inputs and outcomes need to be described, and their relationships need to be validated. Since the major SEOP objective is graduation and not merely early success, longitudinal assessment of the achievement of SEOP students is necessary. Furthermore, since SEOP students very early are competing for grades with regularly admitted students, a comparison of the academic progress of SEOP students with regular students is of interest. Evaluation of the academic outcomes of SEOP students should not simply be directed to questions such as "how many survived for how long," but to other questions such as: "How do the mean grade levels of SEOP and regularly admitted students compare over time as both groups progress through the University?" How do preadmission measures relate to early and intermediate college grade point average? How do early college grades relate to later college grades? Are the characteristics of grade averages for SEOP students similar to those for regularly admitted freshmen?

Answers to these questions enable possible recommendations in admission policies, in course development, and in retention practices.

II. METHODS

A. Overview of the Analyses of SEOP Academic Achievement

1. Overall Achievement

This report considers two aspects of the academic achievement of SEOP beginning freshmen who were admitted in the fall of 1968 and in the fall of 1969. First the relationships between overall grade point average (GPA), HSPR, and preadmission test scores for SEOP entering freshmen are estimated. GPA's are examined over the first two years for the 1968 SEOP group and over the first year for the 1969 SEOP group. Comparative data for fall 1968 and fall 1969 regularly admitted freshmen are also examined. Among preadmission test measures available for most University of Illinois freshmen are scores on the American College Test (ACT), and scores on the School and College Ability Tests Form 1A (SCAT).

Although the ACT Composite score is combined with HSPR to determine admissions eligibility for most University beginning freshmen, ACT scores were missing for many SEOP freshmen, since many SEOP students, especially in the initial 1968 group, probably had no firm plans to attend college when they were juniors in high school, the time at which the ACT is customarily taken. GPA Regression analyses are based upon the SCAT and HSPR predictors, since the SCAT is routinely administered by the University's Psychological and Counseling Service as part of the freshman guidance examination battery and consequently SCAT scores were available for most SEOP beginning freshmen.

2. Achievement in Restructured Courses

A second aspect of the academic performance of SEOP freshmen focuses upon their achievement in the newly-developed or restructured courses. These are Rhetoric 101, 102 and 103, Mathematics 101, and Psychology 105.

The central questions of interest in the examination of the mathematics and psychology courses is first, the predictability of grades in these courses from preadmission measures and second, success in second semester mathematics and psychology courses as a function of grades earned in the restructured courses.

The predictability of grades in Rhetoric 101 and 102 is examined as a function of enrollment in restructured or regular Rhetoric courses, enrollment or not in Rhetoric 103, the writing laboratory, and score on the currently - used Rhetoric placement test, the CEEB English Composition Tests. Also, a special study was conducted of the score gains over time on the English

Composition Test and on essay ratings of content and style over time for the 1969 SEOP freshmen enrolled in restructured Rhetoric courses.

B. Subjects

1. Overall Achievement Records for SEOP and Regularly Admitted Freshmen

The analysis of the overall academic achievement is based upon the records of SEOP and regularly admitted beginning freshmen with complete data for high school percentile rank (HSPR), the CEEB School and College Ability Test Form 1A (SCAT) and first semester grade point average. Complete records were obtained for 405 of the 504 beginning freshmen admitted to the SEOP in the fall of 1968 and for 220 of the 244 beginning freshmen admitted to the SEOP in the fall of 1969. Complete records were available for 4855 regularly admitted 1968 beginning freshmen and for 4941 regularly admitted 1969 beginning freshmen.

2. Restructured or Special Coursework Achievement for SEOP Students

a. Rhetoric 101 and 102

Of the 1968 SEOP beginning freshmen, 141 were enrolled in regular Rhetoric 101 and 336 in special Rhetoric 101 during the first semester. Within this same group, 113 were registered in regular Rhetoric 102 and 296 in special Rhetoric 102 during the second semester. Of the 1969 SEOP beginning freshmen, 73 were enrolled in regular Rhetoric 101 and 137 in special Rhetoric 101 the first semester, and 80 were enrolled in regular Rhetoric 102 the first semester and 102 in special Rhetoric 102 the second semester.

Rhetoric placement scores were available for 394 of the 477 first semester enrollees in Rhetoric 101 within the 1968 SEOP group and for 202 of the first semester enrollees in Rhetoric 101 within the 1969 SEOP group. These two groups were used to estimate the predictability of Rhetoric 101 grades from Rhetoric placement test score, from enrollment in Rhetoric 103, and from enrollment in restructured or regular Rhetoric courses.

Within the 1969 SEOP group, the relationship of grade in Rhetoric 102 was estimated as a function of grade earned in Rhetoric 101, Rhetoric placement test score, enrollment in the writing laboratory or not both semesters, and enrollment in special or regular Rhetoric sections both semesters. Records were available for 173 freshmen enrolled and completing Rhetoric courses 101 and 102 respectively during their freshman year.

The special study of changes in CEEB English Composition test score and changes in essay ratings over time for 1969 SEOP freshmen in special courses and for 1969 regularly admitted freshmen in randomly selected regular courses is flawed by missing data. Part of the data attrition must be traced to the campus disturbances and classroom disruptions that occurred late in the spring of 1970 on the Urbana campus, but part might also be traceable to some skepticism on the part of a few instructors concerning the utility of gathering these data. Complete data for all three administrations of the CEEB English Composition Test (alternate forms) were available for 45 SEOP 1969 freshmen. Complete data for all four writing samples obtained over the two semesters were available for 68 of the 84 SEOP 1969 freshmen enrolled in special Rhetoric both semesters.

Regularly admitted comparison groups were obtained by randomly drawing five regular sections of Rhetoric 101 and 102 respectively each semester. Two essays were secured for 68 regularly admitted freshmen the first semester and for 52 regularly admitted freshmen the second. Analyses of changes in Rhetoric placement test scores for the 1969 regularly admitted freshmen were not made since retest data were available for only 17 of the 52 regularly admitted freshmen with complete essay data the second semester.

b. Mathematics 101

Mathematics courses were taken by 240 of the 1968 SEOP freshman groups the first semester and by 220 of this group their second semester. In Mathematics 101, the 1968 SEOP group showed an enrollment of 132 for the first semester and an enrollment of 50 for the second semester of their freshman year.

First year enrollment in Mathematics 101 within the 1969 SEOP entering freshman group declined markedly in comparison to the 1968 SEOP enrollments; only 18 of the 1969 SEOP freshmen enrolled in Mathematics 101 the first semester and only 11 the second. However, 106 of the 1969 SEOP freshmen were enrolled in Mathematics courses during their first semester and 94 the second.

Therefore all analyses of the effectiveness of Mathematics 101 is confined to data for 1968 SEOP freshmen.

c. Psychology 105

The writer is indebted to Robert Menges and Robert Marx in the Psychology Department of the University of Illinois for their sharing of data pertaining to the achievement of SEOP students in Psychology 105. They secured comparative data as part of their larger study during the spring semester of 1969

for 155 SEOP freshmen enrolled in Psychology 105 and for 155 regularly admitted freshmen enrolled in the regular beginning survey course, Psychology 100. Similar data were obtained during the spring semester of 1970 for 121 regularly admitted freshmen enrolled in Psychology 100 and for 74 SEOP freshmen enrolled in Psychology 105.

For the purposes of the analyses in this report, complete data relating Psychology 100 or 105 grades to HSPR and SCAT scores were obtained, within the 1968 groups, for 147 regularly admitted and for 138 SEOP freshmen and, within the 1969 groups, for 102 regularly admitted and 74 SEOP freshmen.

III. FINDINGS

A. Overall Academic Achievement - SEOP and Regularly Admitted Freshmen

1. Predictor and GPA Summaries

Means and standard deviations for grade point average (GPA) for each of the first four semesters are shown in Table 1 for men and women in the 1968 SEOP and in the 1968 regularly admitted groups with complete HSPR and SCAT predictor data. Table 2 shows camparable summaries for the first two semesters for the 1969 groups. Grade point averages are also reported for SEOP students in restructured or "special" coursework and in traditional or "regular" coursework taken during the freshman year.

TABLE 1

GPA Summaries for 1968 Freshmen

Semester GPA	1968 Regular						1968 SEOP (complete scores)					
	Men			Women			Men			Women		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD
GPA 1	2938	3.59	.74	1917	3.80	.66	168	3.15	.82	237	3.09	.82
GPA 2	2814	3.59	.78	1825	3.89	.66	158	3.04	.90	212	3.11	.80
GPA 3	2525	3.66	.80	1610	3.93	.65	121	3.03	.83	155	3.00	.85
GPA 4	2397	3.89	.72	1587	4.09	.62	117	3.30	.75	143	3.38	.68
GPA 1 (special courses)							145	3.35	.94	207	3.31	.93
GPA 1 (regular courses)							142	2.88	.96	203	3.01	.97
GPA 2 (special courses)							114	3.41	1.05	156	3.38	.98
GPA 2 (regular courses)							157	2.93	.97	210	2.96	.87
Special credits 1							168	5.5	3.6	237	6.6	3.6
Special credits 2							158	3.0	2.5	212	3.7	3.0

TABLE 2

GPA Summaries for 1969 Freshmen

Semester GPA	1969 Regular						1969 SEOP (complete scores)					
	Men			Women			Men			Women		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD
GPA 1	2885	3.69	.75	2056	3.91	.73	101	3.06	.84	131	3.38	.79
GPA 2	2758	3.74	.76	1965	4.04	.63	96	3.20	.82	119	3.46	.77
GPA 1 (special courses)							57	3.42	.88	96	3.56	.95
GPA 1 (regular courses)							98	2.93	.95	108	3.17	.95
GPA 2 (special courses)							49	3.44	1.12	70	3.83	1.04
GPA 2 (regular courses)							93	3.16	.88	117	3.37	.83
Special credits 1							101	2.8	3.0	131	5.2	4.5
Special credits 2							96	2.0	2.3	119	2.5	2.7

Over 80 per cent of the 1968 regularly admitted groups completed the fourth semester; similar completion percentages were found for regularly admitted men and women. Approximately 70 per cent of the 1968 SEOP men and 60 per cent of the 1968 SEOP women completed the fourth semester. Regular students earned consistently higher mean GPA's than did SEOP students; GPA variability was consistently higher for SEOP students than for regular students. SEOP students earned higher GPA's in special coursework than in regular coursework taken during the first two semesters. Except for the first semester GPA of SEOP men, mean GPA for the first two semesters were higher in the 1969 groups than in the 1968 groups. A particularly interesting finding, the abrupt increase in fourth semester GPA for all 1968 groups and in second semester GPA for all 1969 groups, is probably not entirely due to the loss of poorer students from the previous semesters. Grading in the spring semester of 1970, during which student reactions led to so-called strike classes, was probably characterized by relaxed grading standards.

For 1968 students with complete prediction data, means and standard deviations for SCAT scores, for HSPR, for each semester's GPA, and for the cumulative GPA at the end of one and two years are shown in Table 3. Comparable data for 1969 students are shown in Table 4. In each table, regular and SEOP groups are classified into subgroups completing the first semester, the first two semesters, and the first four semesters. The number of credits earned by regular students was not obtained for each semester, so cumulative GPA's for them were approximated by averaging the GPA's for previous semesters.

Large differences between mean HSPR and SCAT scores for regularly admitted and SEOP students are evident in Table 3 and Table 4. The magnitude of the mean differences on these measures, expressed as standard deviations units for the regular group, tend to be smaller for the 1969 comparisons than for the 1968 comparisons, but most comparisons range in the neighborhood of one and one-half to two standard deviations. This is far larger than the mean differences that should be expected if selectivity operated equally in the SEOP and regularly admitted groups. One must conclude that admissions eligibility is more restrictive within the regularly admitted groups.

GPA mean differences for regularly admitted and SEOP entering groups are also large, favoring the regularly admitted groups. Examination of Table 3 indicates that men and women four-semester enrollees in the 1968 regularly admitted group earned approximately the same mean GPA for the first three semesters followed by a sharp rise in GPA for the fourth semester. Both men and women in the 1968 SEOP group showed a sharp decline in mean GPA earned for the third semester and an equally abrupt rise in mean GPA earned for the fourth semester. The decline in mean GPA for SEOP freshmen for the first semester of their sophomore year may reflect their movement into almost complete regular coursework. Their subsequent rise in mean GPA may represent real recovery, or this fourth semester rise may represent instead the effect of peculiar grading conditions existing on campus during the spring of 1970. Data in Table 4 for 1969 freshmen are ambiguous regarding this interpretation.

TABLE 3

SCAT, HSPR, and GPA Summaries for 1968 Freshmen

	1968 SEOP men completing semesters						1968 SEOP women completing semesters					
	1 (N=168)		1 & 2 (N=158)		1,2,3 & 4 (N=104)		1 (N=237)		1 & 2 (N=212)		1,2,3 & 4 (N=137)	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
SCAT V	17.3	7.2	17.2	7.0	17.3	6.8	17.2	7.1	17.2	7.0	17.4	7.3
SCAT Q	16.0	6.2	16.1	6.3	16.2	6.4	12.0	4.7	12.1	4.8	12.2	4.8
HSPR	63.3	24.3	64.0	24.2	67.5	23.1	73.2	18.7	74.4	18.1	76.5	18.0
GPA 1	3.15	.82	3.20	.79	3.39	.69	3.09	.82	3.22	.69	3.40	.62
GPA 2			3.04	.90	3.36	.73			3.11	.80	3.33	.68
GPA 3					3.09	.79					3.09	.81
GPA 4					3.32	.75					3.38	.69
One Year GPA			3.11	.73	3.37	.62			3.16	.63	3.36	.52
Two Year GPA					3.28	.50					3.30	.46

	1968 Regular men completing semesters						1968 Regular women completing semesters					
	1 (N=2938)		1 & 2 (N=2814)		1,2,3 & 4 (N=2347)		1 (N=1917)		1 & 2 (N=1825)		1,2,3 & 4 (N=1542)	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
SCAT V	31.7	8.9	31.7	8.9	31.9	8.9	33.8	8.7	33.8	8.7	33.9	8.8
SCAT Q	35.2	7.7	35.3	7.6	35.6	7.6	29.1	8.4	29.1	8.4	29.3	8.5
HSPR	84.9	12.5	85.0	12.5	85.8	12.0	88.4	10.5	88.5	10.5	88.7	10.4
GPA 1	3.59	.74	3.63	.69	3.74	.63	3.80	.66	3.82	.62	3.89	.59
GPA 2			3.59	.78	3.75	.66			3.89	.66	3.97	.58
GPA 3					3.74	.73					3.96	.61
GPA 4					3.90	.71					4.10	.60
One Year GPA			3.61	.67	3.74	.58			3.86	.58	3.93	.52
Two Year GPA					3.78	.55					3.98	.48

TABLE 4

SCAT, HSPR, and GPA Summaries for 1969 Freshmen

1969 SEOP men completing semesters	1 (N=101)		1 & 2 (N=96)		1969 SEOP women completing semesters 1 (N=131)		1 & 2 (N=119)	
	M	SD	M	SD	M	SD	M	SD
SCAT V	19.7	8.5	19.6	8.4	18.8	7.9	19.0	8.2
SCAT Q	19.4	8.8	19.3	8.9	14.6	5.9	14.9	6.0
HSPR	65.4	22.2	65.5	21.9	78.3	20.5	78.7	20.0
GPA 1	3.06	.84	3.14	.75	3.38	.79	3.44	.70
GPA 2			3.20	.82			3.46	.77
One Year GPA			3.16	.65			3.45	.57

1969 Regular men completing semesters	1 (N=2885)		1 & 2 (N=2758)		1969 Regular women completing semesters 1 (N=2056)		1 & 2 (N=1965)	
	M	SD	M	SD	M	SD	M	SD
SCAT V	31.4	8.9	31.5	8.8	32.6	8.7	32.6	8.7
SCAT Q	34.6	7.9	34.7	7.8	28.1	8.8	28.1	8.8
HSPR	84.2	13.1	84.5	12.9	88.0	10.6	88.2	10.3
GPA 1	3.69	.75	3.74	.67	3.91	.73	3.97	.60
GPA 2			3.74	.76			4.04	.63
One Year GPA			3.74	.65			4.01	.55

2. Predictor and GPA Correlations

Tables 5, 6, and 7 show the intercorrelations among the SCAT measures, HSPR, and various GPA's and cumulative GPA's for the one-semester, two-semester, and four-semester enrollees, respectively. In each table, intercorrelations for men are shown in the upper diagonal and those for women in the lower diagonal.

Intercorrelations shown in Table 5 for the 1968 and 1969 regularly admitted first semester enrollees are similar, with HSPR being the best predictor of first semester GPA for all groups. The pattern of intercorrelations differs for the 1968 and 1969 SEOP groups. First semester GPA validities for 1969 SEOP women were somewhat higher than those for 1968 SEOP women. SCAT verbal score was the best single predictor of first semester GPA for 1968 SEOP men and 1969 SEOP women. HSPR was the best predictor of first semester GPA for 1968 SEOP women and 1969 SEOP men.

The correlations circled in Table 6 are those between GPA's for the first and second semesters. The lower stability of GPA during the first year within the SEOP groups may reflect different grading conditions in the restructured coursework. SCAT verbal and HSPR correlations are about equally predictive of first year GPA for both the 1968 and 1969 SEOP groups; HSPR is the best predictor of first year GPA for all regular groups.

None of the predictors reported in Table 7 for the 1968 four-semester enrollees are substantially correlated with any of the criteria. Predictor correlations with semester GPA's tend to decline over time. Correlations between GPA's for adjacent semesters are approximately 0.6 for the regular men and women; for the SEOP men and women, the correlations of GPA for adjacent semesters range from 0.2 to 0.5.

TABLE 5

Intercorrelations Among Preadmission Measures and First Semester GPA[a]

	1968 SEOP (168 men, 237 women)				1969 SEOP (101 men, 131 women)			
	V	Q	H	1	V	Q	H	1
SCAT V	---	.37	-.21	.23	---	.66	.18	.16
SCAT Q	.34	---	.06	.14	.55	---	.26	.19
HSPR	.08	.17	---	.14	.13	.14	---	.27
GPA 1	.17	.11	.25	---	.37	.29	.28	---
	1968 Regular (2938 men, 1917 women)				1969 Regular (2885 men, 2056 women)			
	V	Q	H	1	V	Q	H	1
SCAT V	---	.39	.26	.25	---	.43	.27	.25
SCAT Q	.32	---	.44	.31	.41	---	.43	.28
HSPR	.27	.42	---	.35	.29	.44	---	.34
GPA 1	.28	.21	.34	---	.24	.21	.34	---

[a]Correlations for men in upper diagonal, correlation for women in lower diagonal.

TABLE 6

Intercorrelations Among Preadmission Measures and First Year GPA[a]

	1968 SEOP (158 men, 212 women)						1969 SEOP (96 men, 119 women)					
	V	Q	H	1	2	Y	V	Q	H	1	2	Y
SCAT V	---	.36	-.19	.21	.19	.24	---	.65	.17	.25	.13	.25
SCAT Q	.35	---	.08	.08	.11	.12	.58	---	.25	.25	.02	.18
HSPR	.11	.15	---	.16	.20	.21	.13	.14	---	.31	.12	.26
GPA 1	.21	.10	.18	---	.47	.82	.42	.27	.26	---	.28	.79
GPA 2	.18	.10	.15	.38	---	.89	.08	.06	.16	.17	---	.79
One Year GPA	.23	.13	.20	.77	.88	---	.32	.21	.26	.73	.79	---

	1968 Regular (2814 men, 1825 women)						1969 Regular (2758 men, 1965 women)					
	V	Q	H	1	2	Y	V	Q	H	1	2	Y
SCAT V	---	.39	.27	.27	.23	.27	---	.43	.27	.28	.20	.26
SCAT Q	.32	---	.45	.32	.22	.29	.41	---	.43	.29	.18	.26
HSPR	.26	.43	---	.37	.32	.38	.31	.46	---	.37	.31	.37
GPA 1	.30	.23	.35	---	.66	.90	.30	.26	.41	---	.64	.89
GPA 2	.25	.14	.28	.62	---	.92	.25	.23	.37	.59	---	.92
One Year GPA	.30	.21	.35	.89	.91	---	.31	.27	.43	.89	.90	---

[a]Correlations for men in upper diagonal, correlations for women in lower diagonal.

TABLE 7

Intercorrelations Among Preadmission Measures

and Two Year GPAs[a]

1968 SEOP

(104 men, 137 women)

	V	Q	H	1	2	3	4	Y	2Y
SCAT V	---	.42	-.20	.29	.27	.10	.07	.33	.28
SCAT Q	.37	---	.09	.15	.08	-.04	-.03	.13	.04
HSPR	.20	.06	---	.04	.16	.16	.09	.12	.17
GPA 1	.16	.11	.08	---	.24	.22	.07	.72	.53
GPA 2	.22	.15	.05	.50	---	.26	.23	.84	.65
GPA 3	.01	.02	.02	.21	.25	---	.44	.31	.76
GPA 4	.15	-.08	.12	.15	.24	.22	---	.21	.68
One Year GPA	.24	.17	.10	.83	.89	.27	.23	---	.76
Two Year GPA	.18	.07	.10	.67	.75	.63	.60	.82	---

1968 Regular

(2347 men, 1542 women)

	V	Q	H	1	2	3	4	Y	2Y
SCAT V	---	.38	.28	.29	.28	.23	.19	.31	.31
SCAT Q	.31	---	.45	.34	.24	.20	.18	.32	.30
HSPR	.27	.43	---	.36	.32	.25	.26	.38	.37
GPA 1	.30	.21	.33	---	.62	.49	.44	.90	.78
GPA 2	.30	.14	.28	.60	---	.57	.49	.90	.82
GPA 3	.27	.12	.25	.51	.57	---	.61	.59	.84
GPA 4	.22	.13	.24	.43	.53	.58	---	.51	.79
One Year GPA	.34	.20	.34	.90	.89	.60	.53	---	.89
Two Year GPA	.34	.19	.34	.78	.83	.83	.79	.90	---

[a]Correlations for men in upper diagonal, correlations for women in lower diagonal.

3. Multiple Regression of GPA on Predictors

Standardized partial regression coefficients, multiple correlations, and "shrunken" multiples -- the multiple R values expected should the sample regression coefficients be applied in cross-validation samples (Darlington, 1968, Formula 14) -- are shown in Table 8 for regularly admitted and SEOP men and women who were enrolled one, two, and four semesters. Criteria are, respectively, first semester, first year cumulative, and two-year cumulative grade point averages.

Multiple correlations predicting the several GPA criteria from SCAT Verbal, SCAT Quantitative, and HSPR significantly differed from zero in all but one of the twenty equations. The single exception was the regression equation predicting the two-year cumulative GPA of the 1968 SEOP women.

HSPR was a significant (alpha = 0.05) predictor in all but the equation for 1968 SEOP women. SCAT Verbal score was a significant predictor in all but three equations, the one predicting the two-year cumulative GPA of the 1968 SEOP women and the two equations for 1969 SEOP men. SCAT Quantitative was a significant predictor in only the equations for regularly admitted men.

For each criterion, the hypothesis of common regression equations for regular and SEOP men and women for each year was tested, and in all cases rejected (alpha = .05). Further tests at alpha = .05 of the hypothesis of common slopes were also in all cases rejected.

4. First Semester GPA Predictors for SEOP and Regularly Admitted Freshmen

An analysis by Bowers (1970) concluded that regression equations predicting first semester GPA from HSPR and the two SCAT scores differed significantly among the four 1968 groups (men and women SEOP and men and women regularly admitted beginning freshmen). Equation differences were due to significant (alpha = .05) generalized slopes. Slope differences were isolated for sex, group, and Sex x Group interactive effects for each predictor. In line with Thomas and Stanley's conclusions (1969), HSPR was a significantly better predictor of first semester GPA for regularly admitted freshmen and SCAT Verbal score was a significantly better predictor of GPA for SEOP freshmen. SCAT Quantitative score was a significant predictor only for regularly admitted men. One significant interactive effect was found; SEOP men and regularly admitted women showed a higher regression effect for GPA on SCAT Verbal score than was found for SEOP women and regularly admitted men.

TABLE 8

Partial Regression Coefficients, Multiple R's, and

Shrunken Multiples for Equations Predicting GPA's from

SCAT V, SCAT Q, HSPR

	N	Intercept	Partial Regression Coefficient for: SCAT V	SCAT Q	HSPR	R	R(shrunken)
First Semester GPA							
1968 SEOP Men	168	2.15	.0293*	.0043	.0067*	.2995*	.224
1968 SEOP Women	237	2.01	.0169*	.0027	.0103*	.2921*	.240
1968 Regular Men	2938	1.47	.0107*	.0141*	.0151*	.4116*	.409
1968 Regular Women	1917	1.73	.0143*	.0025	.0171*	.3889*	.385
1969 SEOP Men	101	2.19	.0064	.0077	.0090*	.3013*	.154
1969 SEOP Women	131	1.96	.0279*	.0136	.0089*	.4437*	.390
1969 Regular Men	2885	1.69	.0116*	.0107*	.0149*	.3945*	.392
1969 Regular Women	2056	1.71	.0115*	.0024	.0200*	.3731*	.369
One Year GPA							
1968 SEOP Men	158	2.10	.0299*	-.0008	.0079*	.3510*	.288
1968 SEOP Women	212	2.34	.0182*	.0037	.0061*	.2936*	.235
1968 Regular Men	2814	1.61	.0115*	.0088*	.0158*	.4235*	.421
1968 Regular Women	1825	1.94	.0150*	.0008	.0157*	.4137*	.410
1969 SEOP Men	96	2.40	.0178	-.0018	.0066*	.3347*	.207
1969 SEOP Women	119	2.55	.0194*	.0023	.0063*	.3867*	.311
1969 Regular Men	2758	1.93	.0114*	.0049*	.0152*	.4104*	.408
1969 Regular Women	1965	1.88	.0113*	.0021	.0192*	.4720*	.469
Two Year GPA							
1968 SEOP Men	104	2.59	.0284*	-.0113	.0056*	.3832*	.293
1968 SEOP Women	137	2.97	.0102	.0010	.0018	.1917	---
1968 Regular Men	2347	2.17	.0124*	.0075*	.0122*	.4354*	.433
1968 Regular Women	1542	2.37	.0145*	-.0009	.0128*	.4256*	.421

*Significant at alpha = .05.

5. First Year GPA Predictions for 1968 and 1969 SEOP Groups

Yongkittikul (1971) examined the similarity of regressions for 1968 and 1969 SEOP men and women freshmen, using first year GPA as the predicted and HSPR and SCAT scores as predictors. Her analysis revealed significant differences among the equations for the four SEOP groups. Further breakdowns showed no generalized slope differences but significant intercept differences mainly traceable to a higher adjusted mean difference for 1969 SEOP women. Double cross-validating 1968 and 1969 weights within the men and women groups did not, except for 1968 men, lead to the amount of shrinkage estimated by Darlington's Formula 14.

6. Effect of Special Coursework Credits

The number of special coursework credits taken during the freshman year was a significant predictor of GPA for 1968 SEOP students, but not for 1969 SEOP students. Table 9 shows the multiple correlations of first year and two-year cumulative GPA's with two predictor equations -- the first combining SCAT V, SCAT Q, and HSPR; the second combining SCAT V, SCAT Q, HSPR, and the number of special credits taken for the first and second semesters. Multiple correlations increased significantly (alpha = .05) when the special unit variables were combined with the ability measures in three of the four 1968 equations. The exception was the equation predicting the first year GPA of SEOP men. The addition of special coursework units did not improve the prediction of GPA in the two 1969 SEOP equations.

TABLE 9

Multiple R's for SEOP Equations Predicting GPA's

for SCAT V, SCAT Q, HSPR, and Special Units

	1968 SEOP				1969 SEOP			
	Men		Women		Men		Women	
	V,Q,H	V,Q,H, Units	V,Q,H	V,Q,H, Units	V,Q,H	V,Q,H, Units	V,Q,H	V,Q,H, Units
One Year GPA	.35	.40 (.31)	.29*	.35 (.27)	.33	.37 (.25)	.39	.44 (.38)
Two Year GPA	.38*	.45*(.23)	.19*	.28*(.--)				

*Significantly different at alpha = .05; shrunken R's shown in parentheses.

B. Rhetoric 101 and Rhetoric 102

1. Analysis Outline

Special sections of Rhetoric 101 and Rhetoric 102 were established by the Rhetoric department in the 1968-69 academic year for students admitted to the SEOP. Three credit hours were awarded for passing grades earned in each of these special freshman year Rhetoric courses, the same number of credit hours earned in regular Rhetoric 101 and Rhetoric 102 sections. SEOP students were also encouraged to enroll in the Rhetoric department's writing laboratory, Rhetoric 103, which awarded one credit on the basis of a pass or fail grade each semester.

The first analysis reported in this section relates grades earned by SEOP freshmen in Rhetoric to Rhetoric placement test scores achieved prior to admission on the CEEB English Composition Test, enrollment in special or regular Rhetoric course sections, and enrollment or not in the writing laboratory, Rhetoric 103. Data are reported separately for fall 1968 and fall 1969 SEOP entering freshmen.

A special study was made of score gain on the CEEB English Composition Test during the freshman year for fall 1969 SEOP entering freshmen and their gain in ratings of content and style for essays written during their freshmen year. The CEEB English Composition Test, administered prior to the beginning of classes, was readministered at the end of the first semester to 1969 SEOP freshmen enrolled in special sections of Rhetoric 101 and readministered at the end of the second semester to 1969 SEOP freshmen enrolled in special sections of Rhetoric 102. However, because of the large amount of missing scores on the third administration, conclusions concerning score gains over the year are risky. Writing samples based upon themes developed by the Rhetoric instructional staff were obtained in mid-October and mid-December from 1969 SEOP freshmen enrolled in special Rhetoric 101 sections and in early March and late April from SEOP freshmen enrolled in special Rhetoric 102 sections. Five randomly-selected sections of regular Rhetoric 101 and five randomly-selected sections of Rhetoric 102 were also retested with the CEEB English Composition Test and writing samples were obtained for students in these regular sections.

2. Grade Distributions in Rhetoric 101 and Rhetoric 102

The distributions of grades earned in Rhetoric 101 and Rhetoric 102 each semester are shown in Table 10 for 1968 and 1969 SEOP freshmen.

Mean grades earned by SEOP freshmen in special Rhetoric sections were uniformly higher each semester than mean grades earned by SEOP freshmen enrolled in regular Rhetoric sections. The mean differences are not large and are approximately .2 to .3 of a grade unit. Since students of different ability probably self-selected themselves into special or regular sections

of Rhetoric 101 and 102, as well as Rhetoric 103, the writing laboratory, it is of interest to learn to what extent Rhetoric 101 and 102 grades are influenced by enrollment in Rhetoric 103, by enrollment in special or regular Rhetoric sections and by score on the Rhetoric placement test. The weight for each of these predictors in a linear regression equation relating Rhetoric grades to a linear combination of these three predictors gives the relative influence of each.

TABLE 10

Rhetoric 101 and Rhetoric 102 Grade Distribution

for SEOP Freshmen

Group and Course	Grade						Mean Grade
	N	A	B	C	D	E	GPA
1968 SEOP - First Semester							
Regular Rhetoric 101	141	5	33	81	18	4	3.12
Special Rhetoric 101	336	17	122	143	33	21	3.24
1968 SEOP - Second Semester							
Regular Rhetoric 102	113	9	29	54	14	7	3.17
Special Rhetoric 102	296	37	116	96	30	17	3.43
1969 SEOP - First Semester							
Regular Rhetoric 101	72	6	28	27	5	6	3.32
Special Rhetoric 101	137	18	52	56	7	4	3.53
1969 SEOP - Second Semester							
Regular Rhetoric 102	80	11	30	28	5	6	3.44
Special Rhetoric 102	102	24	40	27	4	7	3.69

3. Prediction of Rhetoric 101 Grades

The effectiveness of each of three predictors -- enrollment in the writing laboratory, enrollment in special or regular Rhetoric sections, and the score on the CEEB English Composition Test -- for predicting grade earned in Rhetoric 101

was estimated by testing for the significance of the partial regression coefficient of each in a multiple regression equation relating Rhetoric 101 grades to the linear combination of all three predictors. Separate analyses were made for 394 fall 1968 and 202 fall 1969 SEOP freshmen enrolled in special and regular Rhetoric 101. The decrease in sample sizes from those shown in Table 10 is the result of missing CEEB scores for some students.

Means, standard deviations, and intercorrelations among enrollment in Rhetoric 103 (scored + 1 for enrolled, -1 for not enrolled), enrollment in special Rhetoric 101 (scored + 1) and regular Rhetoric 101 (scored -1), score on the CEEB English Composition Test taken prior to course enrollment, and grade in Rhetoric 101 (scored 5 for A, 4 for B, 3 for C, 2 for D, and 1 for E) are shown in Table 11 for 1968 and 1969 SEOP freshmen.

TABLE 11

Summary Statistics for Rhetoric 101, Enrollment in Rhetoric 103, Enrollment in Special Rhetoric 101 Sections and CEEB English Composition Test Score

Variable	1968 SEOP (n=394)		1969 SEOP (n=202)	
	M	SD	M	SD
Rhetoric 103 enrollment	50% (n=196)		55% (n=112)	
Special Rhetoric 101 enrollment	68% (n=269)		65% (n=131)	
CEEB English Composition score	21.1	8.6	14.2	11.2
Rhetoric 101 grade	3.25	0.86	3.49	0.94
Variable	Intercorrelations[a]			
Rhetoric 103 enrollment	----	.329	-.239	.094
Special Rhetoric 101 enrollment	.383	----	-.215	.162
CEEB English Composition Score	-.470	-343	----	.249
Rhetoric 101 grade	- 025	.094	.236	----

[a]Correlations for 1968 SEOP shown in upper diagonal; correlations for 1969 SEOP shown in lower diagonal.

Table 12 shows the unstandardized partial regression coefficients of the three predictors in a multiple regression equation predicting grade in Rhetoric 101 for both SEOP groups. All three predictors of Rhetoric 101 were significant (alpha = .05) for the 1968 SEOP group; all predictors except enrollment in Rhetoric 103 were significant for the 1969 SEOP freshmen. Thus, grades in Rhetoric 101 are significantly predictable from preadmission score on the CEEB English Composition Test. Enrollment in special Rhetoric 101 sections inflates grades approximately .36 grade units. The effect of enrollment in the writing laboratory is in the right direction for both groups but significant only for the 1968 SEOP group, equivalent to approximately .21 grade units. Each CEEB score unit translates into approximately .03 of a grade unit.

TABLE 12

Partial Regression Coefficients and Multiple R's

Predicting Rhetoric 101 Grade

Group	Partial regression coefficients:				
	Intercept	Rhet 103	Special Rhet 101	CEEB English	Multiple R
1968 SEOP	2.53	.105*	.180*	.032*	.34
1969 SEOP	3.04	.054	.179*	.027*	.30

4. Prediction of Rhetoric 102 Grades

The prediction of Rhetoric 102 grades was based upon the linear combination of grades earned in Rhetoric 101, enrollment in special or regular sections each semester, enrollment or not in the writing laboratory each semester and score on the CEEB English Composition Test. Data were available for 173 1969 SEOP freshmen who were enrolled in Rhetoric 101 and Rhetoric 102 the first and second semesters, respectively, of their freshman year. Stepwise analysis of the multiple regression weights indicated that, within this group, only grade in Rhetoric 101 was a significant predictor. The multiple regression equation was: Predicted Rhetoric 102 grade = 2.17 + .4 Rhetoric 101 grade. Within this 1969 SEOP group, grade means were 3.54 in Rhetoric 101, and 3.58 in Rhetoric 102. Standard deviations were .81 and 1.08, respectively; the two

grades correlated .30. Preadmission score on the CEEB English Composition Test, enrollment in special or regular classes, and enrollment in the writing laboratory for either of the semesters all correlated less than .10 with Rhetoric 102 grade. The best predictor, ineffective as it was, of grade in Rhetoric 102 was performance in Rhetoric 101. A scatterplot of Rhetoric 101 and 102 grades for the 1969 SEOP students is shown in Table 13. Thirteen of the 20 students who earned grades of D or E in Rhetoric 102 the second semester had earned grades of C or D in Rhetoric 101 the first semester. Perhaps grades in Rhetoric 101 should be carefully screened in order to sort out students who require more intensive preparation in language skills. Of the 164 students who earned grades of A, B, or C the first semester, 61 raised their grade the second semester, and 41 earned lower grades the second; 5 of the 9 students who earned a D the first semester raised their grade to C the second.

The only significant predictor of Rhetoric 102 grade for 1969 SEOP students was grade achieved in Rhetoric 101 -- special or regular sectioning had no effect on Rhetoric 102 grades, nor did enrollment in the writing laboratory either semester or score on the precoursework Rhetoric placement test. Therefore, the decision to advise enrollment in special or regular sections in Rhetoric 102 is irrelevant for most SEOP students, since grading standards for SEOP students are equivalent in both types of sections.

TABLE 13

Scatterplot of Rhetoric 101 and Rhetoric 102 Grades

Rhetoric 101 Grade	Rhetoric 102 Grade					
	A	B	C	D	E	Row Totals
A	7	5	3	2	2	19
B	21	29	17	1	2	70
C	7	33	26	4	5	75
D			5	2	2	9
Column Totals	35	67	51	9	11	173

5. Mean Ratings of Essays for SEOP and Regularly Admitted Freshmen

Table 14 presents the mean content and style scores on the four essay writing samples for 1969 SEOP freshmen who are classified according to their first year enrollment pattern in Rhetoric

103, the writing laboratory. These data are for SEOP freshmen enrolled in special Rhetoric 101 and 102 sections, respectively, both semesters. Four writing samples were obtained, two each semester, and ratings were developed according to standardized procedures using four raters outlined by Slotnick (1971). The content and style score for each essay is the sum of five-point ratings (1 is high, 5 is low) given by four raters (two SEOP instructors and two non-SEOP instructors) to each essay. Also shown in Table 14 are mean content and style ratings for regularly admitted freshmen enrolled in the five randomly selected regular sections each semester.

TABLE 14

Mean Content and Style Ratings on Four Essay Samples

		Mean Rating for:							
	n	Content on Essay:				Style on Essay			
SEOP in Rhet 103		1	2	3	4	1	2	3	4
Both Semesters	35	3.7	3.5	3.4	3.4	3.5	3.4	3.4	3.3
First Semester Only	18	3.4	3.5	3.5	3.2	3.3	3.4	3.2	2.9
Second Semester Only	5	3.0	3.4	2.7	2.8	2.8	3.2	2.8	3.0
Neither	10	3.1	3.1	2.5	3.2	3.0	3.0	2.6	2.9
All SEOP	68	3.5	3.4	3.2	3.2	3.3	3.3	3.2	3.1
Regular Freshmen									
Semester 1	68	2.8	2.6	---	---	2.6	2.4	---	---
Semester 2	52	---	---	2.6	2.8	---	---	2.6	2.8

6. Analysis of SEOP Essay Ratings

Analyses of variance of the essay ratings for the four SEOP groups are shown in Table 15; complete data for the four writing samples were available for 68 of the 84 SEOP freshmen enrolled in special Rhetoric sections both semesters (and completing Rhetoric 101 with a passing grade). For both content and style ratings, there are significant overall group effects, significant writing sample effects, but no significant interaction effects of Sample X SEOP Group. Inspection of the table of means indicates that in general, better ratings were obtained by students either not enrolled in the writing laboratory or by students enrolled in the writing laboratory

for the second semester only. This finding is fairly consistent over all four writing samples, as indicated by the failure to find Sample X Group interaction. Also, ratings on the average were significantly higher (alpha = .05) for the two writing samples obtained the second semester than for the two obtained the first.

TABLE 15

ANOVA of Content and Style Ratings for 1969 SEOP Students

		Content			Style		
Source of Variation	df	SS	MS	F	SS	MS	F
Persons	67	1046.25			1255.06		
A. Groups	3	180.05	60.02	4.43*	173.84	57.95	3.43*
Error (a)	64	866.20	13.53		1081.22	16.89	
Within persons	204	949.50			558.00		
B. Samples	3	48.37	16.12	3.69*	40.62	13.54	5.33**
B^1. First vs. Second Semester	1	47.78	47.78	10.93**	39.76	39.76	11.98**
C. Samples x Groups	9	62.06	6.90	1.58	29.85	3.32	1.31
Error (b)	192	839.07	4.37		487.53	2.54	

*Significant at alpha = .05.
**Significant at alpha = .01.

7. Essay Ratings for SEOP and Regular Freshmen

Analyses of variance for the mean ratings of the four SEOP groups and the regular group in the randomly selected regular classes are shown in Table 16. Content and style analyses were made separately for the first and second semesters, since the five randomly selected sections of regular Rhetoric classes were different each semester -- sections of students in regular sections do not typically remain intact across semesters.

The highly significant group effects for rated content and style both semesters are due to the generally higher ratings earned by the regular group of students. There were no writing sample effects (difference in mean ratings of the

two essays) or no Sample X Group interactions for content or style the second semester. However, there was a significant Sample X Group interaction for style ratings for the first semester due to the slight improvement of style ratings in the regular freshman group. The improved ratings of the relatively large number of regular students the first semester also appears to be the main cause of the significant sample effects in both content and style found for the first semester.

8. CEEB Gains During the Freshman Year for SEOP

Generalization about score gain by SEOP freshmen on the Rhetoric placement test is hazardous since complete CEEB English Composition Test data for all three administrations were obtained for only 45 of the 84 1969 SEOP freshmen who were enrolled in special Rhetoric sections during their first year. An analysis of variance of the mean test scores for the three administrations is shown in Table 17; the freshmen are grouped according to enrollment in the writing laboratory both semesters of the first year. Administration effects were significant; further analysis indicated that there was significant improvement in score from the preadmission administration to the administration at the end of the first semester, but no score gain during the second semester. There were also significant group effects, indicating that better-prepared students did not enroll in the writing laboratory. There was no significant Group X Administration interaction. Overall observed mean score gain was from 11.3 for the preadmission administration to 17.3 for the first semester administration to 18.3 for the second semester administration.

Because of missing data, the estimate of essay grade improvement over the year for SEOP students is possibly biased. Nevertheless, the SEOP students with complete data showed a significant improvement in rated content and style for the second semester essays. This appears to conform to the overall tendency of the 1969 SEOP group to earn higher Rhetoric grades the second semester.

The picture that emerges is that the lower scoring 1969 SEOP students on the Rhetoric placement test tended to enroll in special sections of Rhetoric and also tended to enroll in the writing laboratory. Their test scores predicted their first semester Rhetoric 101 grades. First semester grades in special sections were inflated about .4 of a grade unit. Since grades for the second semester Rhetoric 102 were predictable only from grade earned the first, the effects of Rhetoric 101 was to rearrange the students in terms of their performance level in Rhetoric. Grades in Rhetoric 101 measured this resorting and were to some extent valid in predicting further achievement in Rhetoric.

TABLE 16

ANOVA of Content and Style Ratings for

1969 SEOP and Regular Students

Source of Variation	First Semester df	Content MS	Content F	Style MS	Style F	Second Semester df	Content MS	Content F	Style MS	Style F
Persons	135					119				
A. Groups	4	181.25	21.94**	206.90	25.20**	4	97.80	11.96**	70.20	8.85**
Error (a)	131	8.26				115	8.16		7.93	
With persons										
B. Samples	1	19.60	6.18*	16.01	7.77**	1	4.01	0.80	0.60	0.21
C. Samples x Groups	4	6.96	2.20	6.52	3.17*	4	11.47	2.29	5.26	1.84
Error (b)	131	3.17		2.06		115	5.01		2.86	

*Significant at .05.
**Significant at .01.

Within the first two fall SEOP groups, grades in Rhetoric 101 were determined partially by enrollment in special sections of Rhetoric preparation and by ability in standard English usage measured by the CEEB English Composition Test. There was a distinct grading advantage to be gained by enrollment in special Rhetoric 101 sections. The effect of enrollment in the writing laboratory upon grades in Rhetoric 101 was advantageous only for the 1968 group. If these findings continue for future SEOP enrollees, counseling would argue for special sectioning of SEOP students and possibly for the use of Rhetoric placement tests for ability grouping within the special sections, since there are many SEOP students (about 14 per cent) who earned grades of D and E even within the special sections. Probably only SEOP students with higher placement test scores should be allowed to enroll in regular Rhetoric 101 sections, and it is clear that many of those in these groups who did so would have been better advised to take advantage of the special sections made available by the Rhetoric department.

TABLE 17

CEEB Analyses of Variance for SEOP Students

	df	MS	F
Between SS	44		
Groups	3	441.55	5.20**
Error(a)	41	84.96	
Within SS	90		
Administrations	2	641.39	4.35**
1st vs 2nd and 3rd	1	1263.17	8.57**
2nd vs 3rd	1	19.60	0.13
Group x Administration	6	78.28	0.53
Error(a)	82	147.70	

**Significant at alpha = .01.

C. Mathematics 101

1. Overview

The achievement of fall 1968 and fall 1969 SEOP students in freshman year mathematics courses is examined in this section. All course enrollments are summarized, but emphasis is on a new course in basic mathematics introduced for SEOP students, Mathematics 101. Mathematics 101 is a four-credit course meeting five times a week. Since many SEOP freshmen lacked at the time of their admission the mathematics preparation needed to compete successfully in regular first-year mathematics courses, the objective of Mathematics 101 was to prepare these students for these regular courses. Consequently students were placed in Mathematics 101 when their scores on the College Entrance Examination Board Mathematics Placement Test indicated that additional preparation for regular introductory courses was advisable.

2. Enrollments and Grades

Table 18 shows the number of 1968 and 1969 SEOP students who enrolled in Mathematics courses their first year. Table 19 shows the grade distributions and the averages of the SEOP freshmen registered in first year mathematics courses.

Mean grade in Mathematics 101 was typically higher than the grade averages in other first year mathematics courses. The 1968 SEOP freshmen average grade was 3.45 the first semester and 3.32 the second in Mathematics 101; 1969 freshmen averaged 3.50 the first semester and 3.27 the second in Mathematics 101. Averages in mathematics courses other than Mathematics 101 were marginal at best for SEOP freshmen; in other first year mathematics courses, the 1968 SEOP freshmen averaged 2.62 the first semester and 2.55 the second; the 1969 SEOP freshmen averaged 2.93 the first semester and 2.82 the second in other mathematics courses.

3. The Effectiveness of Mathematics 101

The effectiveness of Mathematics 101 is not entirely measured by grade averages earned in it; rather, its the effectiveness demonstrated by the success of its students in regular freshman mathematics courses taken during the second semester. Other things being equal -- especially initial mathematics ability -- if Mathematics 101 prepares students for regular freshman mathematics courses, then freshmen who took regular mathematics courses after having taken Mathematics 101 should earn better grades in the regular courses than did students whose first mathematics was a regular course.

Table 18

SEOP Freshmen Enrolled in Mathematics Courses Their Freshman Year

	Mathematics Courses	1968 SEOP Enrolled Sem. 1	1968 SEOP Enrolled Sem. 2	1969 SEOP Enrolled Sem. 1	1969 SEOP Enrolled Sem. 2
101	Basic Mathematics	132	50	18	11
104	Elements of Algebra & Trigonometry	4	5	5	0
111	Algebra	56	81	39	23
112	College Algebra	13	9	9	2
114	Plane Trigonometry	7	17	3	18
118	Introduction to Math	4	5	3	1
119	Introduction to Math	0	2	--	1
120	Calculus	--	--	--	15
122	Analytic Geometry	4	2	3	--
123	Analytic Geometry	6	21	11	--
124	Introductory Analysis for Social Scientists	1	9	1	8
132	Calculus	0	5	--	8
133	Calculus	0	2	--	4
134	Introductory Analysis for Social Scientists	0	2	--	--
111 & 114		2	6	4	--
112 & 114		11	4	12	2
114 & 118		0	1	--	--
114 & 123		1	--	--	--
Total Enrolled in Math Courses		241	221	108	93

Table 19

Grade Distributions and Means in First Year
Mathematics Courses for SEOP Students

1968 Group	First Semester							Second Semester						
	N	A	B	C	D	E	GPA	N	A	B	C	D	E	GPA
101	132	33	30	41	19	9	3.45	50	12	10	16	6	6	3.32
111	58	3	8	17	17	13	2.50	87	2	17	30	18	20	2.57
112	24	4	5	6	7	2	3.08	13	--	--	5	4	4	2.08
114	21	2	5	6	5	3	2.90	28	1	1	8	6	12	2.04
120	--	--	--	--	--	--	----	--	--	--	--	--	--	----
122	4	--	--	2	1	1	2.25	2	--	--	1	--	1	2.00
123	6	--	1	2	3	--	2.67	21	2	6	6	3	4	2.95
124	1	--	--	1	--	--	3.00	9	2	2	3	2	--	3.44
Other	8	--	1	2	2	3	2.13	21	1	1	6	4	9	2.10

1969 Group	First Semester							Second Semester						
	N	A	B	C	D	E	GPA	N	A	B	C	D	E	GPA
101	18	5	3	7	2	1	3.50	11	1	5	3	--	2	3.27
111	43	1	11	7	15	9	2.53	23	2	8	5	3	5	2.96
112	21	3	6	8	--	4	3.19	4	1	--	1	2	--	3.00
114	19	2	4	6	5	2	2.95	20	1	--	9	4	6	2.30
120	--	--	--	--	--	--	----	15	3	3	6	3	--	3.40
122	3	--	1	2	--	--	3.33	--	--	--	--	--	--	----
123	11	2	--	4	4	1	2.82	--	--	--	--	--	--	----
124	1	--	--	--	1	--	2.00	8	--	--	5	2	1	2.50
Other	8	1	0	3	2	2	3.00	14	2	2	5	2	3	2.86

TABLE 20

Grade Achievement of Three SEOP Freshmen Groups

in Mathematics 111, 112, and 114

Course Taken		Number of Students					Grade Point Average
Semester		Earning a Grade of:					
1	2	A	B	C	D	E	
101	111	2	14	23	12	16	2.61
111	---	3	8	17	17	13	2.50
None	111	-	2	5	5	3	2.40
101	112	-	-	2	3	2	2.00
112	---	4	5	6	7	2	3.08
None	112	-	-	2	1	2	2.00
101	114	-	-	-	2	7	1.22
114	---	2	5	6	5	3	2.90
None	114	-	-	1	-	-	3.00

Table 20 shows grade distributions and averages in Mathematics 111, 112, and 114 (typical beginning college Algebra and Trigonometry courses) for three subgroups of fall 1968 SEOP students: (a) students enrolled in these three courses the second semester after having taken Mathematics 101 the first semester; (b) students who were enrolled in these three courses during the first semester; (c) students enrolled in these three courses during the second semester who took no mathematics courses during the first semester. Similar data for 1969 SEOP students are not tabled because of their limited Mathematics 101 enrollment (see Table 19). Table 21 reclassifies the 1968 SEOP students shown in Table 20 according to their grade in Mathematics 101 for the first semester.

Grade in Mathematics 101 clearly forecasted performance in Mathematics 111; "A" students in Mathematics 101 earned an average grade of 3.41 in Mathematics 111; "B" and "C" students in Mathematics 101 did much poorer, earning grade averages of 2.30 and 2.16, respectively. Twenty of the 22 "A" students in Mathematics 101 earned grades of "C" or higher in Mathematics 111;

9 of the 20 "B" students and 10 of the 25 "C" or lower students in Mathematics 101 earned grades of "C" or above in Mathematics 111. These findings indicate that Mathematics 101 grades are inflated to a large extent. Only the "A" students in Mathematics 101 showed a high likelihood of success in Mathematics 111; "B" and "C" students in Mathematics 101 were not well-prepared for Mathematics 111. There is too small a number of students enrolled in Mathematics 112 and 114 to permit stable comparison, but the directions are similar.

TABLE 21

Grade Achievement of SEOP Freshmen in Mathematics 111, 112, and 114

Classified by Grade Earned in Mathematics

Course Taken		Number of Students					Grade Point Average
Semester		Earning a Grade of:					
1	2	A	B	C	D	E	
101 (A)	111	2	8	10	1	1	3.41
101 (B)	111	-	4	5	4	7	2.30
101 (C or lower)	111	-	2	8	7	8	2.16
101 (A)	112	-	-	2	-	-	3.00
101 (B)	112	-	-	-	2	1	1.67
101 (C or lower)	112	-	-	-	1	1	1.50
101 (A)	114	-	-	-	2	-	2.00
101 (B)	114	-	-	-	-	4	1.00
101 (C or lower)	114	-	-	-	-	3	1.00

4. Relationships of Mathematics Test Scores with Achievement for 1968 Freshmen

Scores on three mathematics tests were obtained for most of the 1968 SEOP freshmen: the School and College Ability Tests Form 1A - Quantitative (SCAT Q), the Cooperative Mathematics Test Form B - Arithmetic (COOP M), and the College Entrance

Examination Board Intermediate Level Mathematics Placement Test (CEEB M). Students were placed in Mathematics 101 when their scores on CEEB M were below a score of 5.[1] The COOP M was administered to SEOP freshmen on an experimental basis to learn whether it would be more effective than the more difficult CEEB M for assessing the mathematics ability of SEOP freshmen. SCAT Q scores were obtained as part of the Freshman Guidance Examinations given to all freshmen entering the University.

The relationships of three mathematics tests with grades in Mathematics 101 and 111 are shown in Table 22 for three groups of students: (a) students enrolled in Mathematics 101 for the first semester and in Mathematics 111 for the second; (b) students enrolled in Mathematics 101 the first semester who did not take Mathematics 111 the second; and (c) students whose first mathematics course was Mathematics 111, taken either during the first or second semesters.

SCAT Q and COOP M scores correlated at a moderate level with grades for the two groups taking Mathematics 101 the first semester; the more difficult CEEB M did not correlate with Mathematics 101 grade. All three tests were moderately correlated with Mathematics 111 grades for only the students who first enrolled in this regular course.

Although the correlations between test score and course grade in Mathematics 101 were approximately the same for the two groups of students enrolled in Mathematics 101 for the first semester, further analysis indicated that identical test scores predicted significantly higher Mathematics 101 grades for the group of students who went on to enroll in Mathematics 111 for the second semester. Table 23 summarizes tests of common regression equations -- predicting Mathematics 101 Grades from Test scores (either SCAT Q or COOP Math) -- for the two groups enrolled in Mathematics 101 the first semester. The equations for the group who went on to enroll in Mathematics 111 showed a significantly higher intercept value than the equation for the group who only took Mathematics 101. The estimated equations for predicting Mathematics 101 grade from either SCAT Q or COOP M scores for the two groups are:

Group	Equation
101-111	Predicted 101 grade = 2.80 + 0.09 SCAT Q
101-( )	Predicted 101 grade = 1.95 + 0.09 SCAT Q
101-111	Predicted 101 grade = 2.00 + 0.06 COOP M
101-( )	Predicted 101 grade = 1.20 + 0.06 COOP M

[1] Scored rights minus one-fourth wrongs.

TABLE 22

Relationships of Mathematics Grade

with Three Mathematics Ability Tests

Test and Group	N	Test $\bar{X}$	Test SD	Math 101 Grade $\bar{X}$	Math 101 Grade SD	Math 111 Grade $\bar{X}$	Math 111 Grade SD	Test-Grade Correlation 101	Test-Grade Correlation 111	Correlation of 101 and 111 Grade
SCAT Q:										
101 - 111	63	12.1	3.7	3.9	1.0	2.6	1.1	.24	.03	.42
101 - ( )	60	11.6	4.3	3.0	1.2	---	---	.38	---	---
111 or 111	65	15.2	5.0	---	---	2.5	1.1	---	.37	---
COOP Math										
101 - 111	58	30.4	7.3	3.8	1.0	2.6	1.1	.39	-.01	.39
101 - ( )	57	29.8	7.8	2.9	1.2	---	---	.40	---	---
111 or 111	52	37.4	6.8	---	---	2.4	1.1	---	.48	---
CEEB Math										
101 - 111	58	1.0	2.9	3.9	1.0	2.6	1.1	.04	.01	.44
101 - ( )	65	1.3	3.4	3.0	1.2	---	---	.11	---	---
111 or 111	58	3.8	4.1	---	---	2.4	1.1	---	.42	---

TABLE 23

F-Tests of Common Equations Predicting Mathematics 101 Grades from Test Scores for the Two Mathematics 101 Groups

	SCAT Q	COOP M	CEEB M
Common Regression	$F_{1,119} = 0.70$	$F_{1,111} = 0.04$	not tested
Common Intercepts	$F_{1,119} = 19.09$*	$F_{1,111} = 20.11$*	not tested

*Significant at alpha = .05.

All three tests were moderately correlated with Mathematics 111 grades only for the students who first enrolled in Mathematics 111. Neither SCAT Q nor COOP M nor CEEB M related to grades in Mathematics 111 for the group of SEOP students who had taken Mathematics 101 the first semester. Further analysis easily confirmed the obvious fact that grade in Mathematics 111 was independent of initial mathematics test score after completion of Mathematics 101.

These two tests probably measure a broad range of both the mathematics fundamentals needed for success in Mathematics 101 and the more advanced concepts required for success in Mathematics 111. Students who enrolled and did well in Mathematics 101 were learning the more advanced concepts that they lacked at the time they took the tests. The extent of their learning is reflected in their Mathematics 101 grades. The more difficult CEEB M probably measures were advanced concepts and consequently did not correlate with grades in Mathematics 101 for either of the two Mathematics 101 groups. CEEB M did correlate, however, .42 with Mathematics 111 grades for the group who took this course first.

D. Psychology 105

1. Overview

Psychology 105 was established by the Department of Psychology at the University of Illinois in the 1968-69 academic year for students entering the SEOP. Psychology 105 is a four-credit introductory course which was developed because the success rate of SEOP freshmen who would have enrolled in the regular introductory course, Psychology 100, was expected to be low.

Robert Menges and Robert Marx, members of the Department of Psychology, are currently engaged in a wider evaluation of Psychology 105. They have kindly furnished part of their data for use in this report. Their study is based upon the use of common items appearing in Psychology 100 and Psychology 105 tests of content achievement in introductory Psychology and the use of regularly admitted students matched for sex and college enrolled in Psychology 100 for comparison with students in Psychology 105.

Data were furnished for 155 SEOP 1968 freshmen and 155 regularly admitted 1968 freshmen; data were furnished for 74 SEOP 1969 freshmen and 121 regularly admitted 1969 freshmen. All SEOP freshmen were enrolled in Psychology 105; all regularly admitted freshmen were enrolled in Psychology 100. Data were secured each year during the spring semester. Measures obtained were: HSPR, SCAT Verbal score, grade in either Psychology 100 or Psychology 105 and a pre- and post-test on content material covered in both Psychology 100 and Psychology 105 (administered near the beginning and end, respectively, of the semester) achievement scores in psychology. A 17-item test was administered to the 1968 groups, a 50-item test to the 1969 groups.

Complete HSPR, SCAT V and grade data were available for 147 regularly admitted and 138 SEOP freshmen in the 1968 groups, and for 102 regularly admitted and 74 SEOP freshmen in the 1969 groups.

2. Grade Distributions in Psychology 105 and in Second Psychology Course

Grade distributions for the 1968 and 1969 SEOP students in Psychology 105 are shown in Table 24. Also shown are grade distributions for Psychology courses taken the following semester by these students. Mean grades tended to be higher in Psychology 105 than in the next psychology courses taken by members of the 1968 group with the exception of special sections of Psychology 201 where somewhat elevated grading standards prevailed. Psychology 201 is a course in Social Psychology and is frequently taken after introductory psychology by University of Illinois students. In the regular Psychology 201 sections, the mean grade was 2.4, which is .8 of a grade unit lower than the mean grade of 3.2 earned by the 1968 SEOP group in Psychology 105.

Only 30 students in the 1969 SEOP were enrolled in Psychology courses the following semester, again most in Psychology 201. In this group however, mean grades were approximately equal for the two courses, Psychology 105 ($\bar{x} = 3.5$) and Psychology 201 ($\bar{x} = 3.4$).

Table 24

Grade Distributions and Means for SEOP
Students Enrolled in Psychology 105
and in Psychology Courses the Next Semester

		A	B	C	D	E	Mean
1968 Group							
First Semester Psychology 105		22	37	61	21	14	3.2
Second Semester:							
	Psych. 103	--	--	1	--	--	3.0
	Psych. 105	--	1	1	1	--	3.0
	Psych. 201	1	4	11	9	8	2.4
	Psych. 201a	26	4	2	--	3	4.4
	Psych. 211	--	--	1	--	1	2.0
	Psych. 216	1	--	1	3	1	2.5
	Psych. 250	--	--	4	1	--	2.8
1969 Group							
First Semester Psychology 105		17	20	27	6	4	3.5
Second Semester:							
	Psych. 201	5	4	3	2	4	3.2
	Psych. 216	1	--	5	1	1	2.9
	Psych. 250	1	--	3	--	--	3.5

3. Grades in Psychology 201 and Psychology 105

The scatterplot of grades earned in Psychology 105 and Psychology 201 (regular sections) are shown for 1968 and 1969 SEOP freshmen in Table 25. In both the 1968 and 1969 SEOP groups, relationships between the two sets of grades are insignificant; the correlation between the grades is .32 for the 1968 group and is -.34 for the 1969 group. Thus, grade in Psychology 105 provides no information concerning grades earned subsequently in Psychology 201.

TABLE 25

Psychology 201 Grade vs Grade in Psychology 105

for 1968 and 1969 SEOP Students

1968 Group

Psychology 105	Psychology 201				
	A	B	C	D	E
A	1	2	2	1	-
B	-	-	1	1	3
C	-	2	7	5	4
D	-	-	1	2	1

1969 Group

Psychology 105	Psychology 201				
	A	B	C	D	E
A	1	-	2	-	1
B	-	-	1	-	2
C	2	4	-	2	1
D	1	-	-	-	-
E	1	-	-	-	-

4. Prediction of Psychology 105 Grade

Multiple regression equations were calculated, predicting grade in Psychology 105 for SEOP students and grade in Psychology 100 for matched regularly admitted students from a linear combination of HSPR and SCAT V. The purpose of this analysis is to examine comparability of mean grade achievement for both

groups adjusted for the effects of HSPR and SCAT V ability measures. If achievement is equally and significantly predictable in both courses from the input ability measures, and if there is no difference in the regression equations for both groups, then it follows that it makes little difference in outcome whether students at a given ability level enroll in Psychology 100 or Psychology 105.

Significantly different regression equations are difficult to interpret. In the case of similar regressions but different intercepts, a higher intercept for the Psychology 105 equation may indicate an achievement gain resulting from the effects of instructional treatment factors in Psychology 105 that did not operate in Psychology 100. If slopes differ for the two groups, then one must conclude that differences in predicted outcomes for the two groups vary for different values of the predictors, that is, there is a Group X Predictor interaction.

Table 26 presents means, standard deviations, and intercorrelations for SEOP freshmen enrolled in Psychology 105 and for regularly admitted freshmen enrolled in Psychology 100 who were matched on sex and college to the SEOP group. Data are reported separately for the 1968 and 1969 groups. Regression equations are also reported in Table 26. Within each year's group, the SEOP and regularly admitted equations differed significantly. The equations differed in generalized slopes for the 1968 groups, so for the 1968 data equations, differences cannot be interpreted as a constant course effect at all levels of the ability measures. Within the 1969 data, however, slopes were similar but intercepts differed, suggesting grade inflation for the 1969 SEOP group. The intercept difference favoring SEOP students means that for a fixed level of ability measured by HSPR and SCAT V scores, SEOP students earned a mean grade unit .74 higher than regularly admitted students.

5. Regression of Psychology Grade on Common Exam Item Score

Seventeen common items appeared in hourly tests given to Psychology 100 and Psychology 105 students in the 1968 group; 50 common items were given to the 1969 groups.

Two questions are of interest. First, how representative of total grade is the score on these common examination items? Second, if course grade is regressed on common item score, do SEOP and regularly admitted students have common regression equations? If they do, then the same mean grade is predicted within either course from the same common achievement base. If the common item score is correlated with grade and of

Table 26

Psychology Grade, HSPR and SCAT V Summaries for
Regular and SEOP Freshmen

1968 Groups	HSPR			SCAT V			PSYCH $\frac{100}{105}$		
	N	M	SD	N	M	SD	N	M	SD
Regular	147	86	11	147	32.0	7.8	155	3.8	1.0
SEOP	138	70	22	138	17.8	6.7	155	3.2	1.1

	Grade Prediction Equation	R
Regular	.503 + .097 (SCAT V) + .014 (HSPR)	.59
SEOP	-.613 + .032 (SCAT V) + .039 (HSPR)	.52
	(Slopes different)	

1969 Groups	HSPR			SCAT V			PSYCH $\frac{100}{105}$		
	N	M	SD	N	M	SD	N	M	SD
Regular	102	83	15	102	31.3	8.5	121	3.5	1.0
SEOP	74	74	21	74	16.4	6.2	74	3.5	1.1

	Grade Prediction Equation	R
Regular	1.036 + .031V + .018 (HSPR)	.39
SEOP	1.581 + .056V + .014 (HSPR)	.41
	(Slopes same, intercepts different)	
Regular	1.062 + .038V + .015 (HSPR)	
SEOP	1.802 + 038V + 015 (HSPR)	
	(Common slopes)	

similar regressions are found, then one might reasonably conclude that grading standards were approximately equivalent in both groups.

Means standard deviation and intercorrelations for psychology grade and common item score are shown in Table 27. Part-whole correlations were moderately high for all groups. The correlations were higher for regular freshmen in Psychology 100 both years than they were for SEOP freshmen, and correlations of grade with the 50-item test than the correlations of grades with the 17-item test. The longer test was probably more reliable, and grades perhaps were determined to some extent more on the basis of test items in Psychology 100.

TABLE 27

Psychology Grade and Common Item Score for

Regularly Admitted and SEOP Students

Group	n	Common Item $\bar{X}$	Common Item S	Grade $\bar{X}$	Grade S	
1968 Regular	145	13.8	2.0	3.8	1.0	.67
1968 SEOP	125	11.8	2.1	3.2	1.0	.51
1969 Regular	109	36.4	6.1	3.5	1.0	.74
1969 SEOP	67	28.0	5.9	3.7	1.1	.63

Regression equations predicting course grade from common item score are shown in Table 28 for all groups. Equations for the 1968 groups were the same; they showed neither significant slope nor intercept differences. Thus in the 1968 data, on the basis of the 17-item score, the same overall grade is predicted in either Psychology 100 or Psychology 105. If grades were inflated in Psychology 105, one would expect intercept differences. These data provide a mild basis for concluding that grades were not padded in the Psychology 105 group of 1968 SEOP students. The 1969 data lead to different conclusions however. The equations for the two groups were different; slopes were the same, but intercepts differed significantly (alpha = .05) in favor of the 1969 SEOP group. This is supporting evidence for the conclusion that grading standards were relaxed in Psychology 105 in 1969.

TABLE 28

Regression Equations of Psychology Grade

on Common Item Score

1968 Regular	Psych 100 grade = -.16 + .29 (Common Item)
1968 SEOP	Psych 105 grade = -.16 + .29 (Common Item)
1969 Regular	Psych 100 grade = -1.00 + .12 (Common Item)
1969 SEOP	Psych 105 grade = .47 + .12 (Common Item)

IV. CONCLUSION & IMPLICATIONS

The analyses described in this report lead to one major conclusion: the overall academic achievement of students entering the SEOP is predictable from customary predictors such as HSPR and standardized test scores. These measures were valid predictors of the overall grade point average for the first year and for the first two years, respectively, in the 1969 and 1968 groups. Appropriate preadmission tests in mathematics, verbal abilities, and English composition are also valid predictors of grades earned in the specific courses that were examined.

Validities were not impressive. However, at least two factors operate to suppress the test correlations with grades for SEOP students. Tests routinely used by the University of Illinois are appropriate for regularly admitted Illinois freshmen, who enroll under extremely selective admissions rules. These tests are typically too difficult for SEOP freshmen; easier forms would perhaps lead to more reliable discrimination of true ability within the SEOP group and consequently to higher correlation with grade criteria. Predictive validities are also attenuated by grade unreliability. GPA's for regularly admitted groups at the University of Illinois are unstable, but not to the degree characterizing the GPA's for SEOP freshmen. Instability of GPA has been discussed by Humphreys (1968)in his eight-semester longitudinal analyses of earlier data for University of Illinois freshmen entering in the fall of 1962 and 1963. At that time of lower admissions standards, students who survived despite the instability of GPA were those who from the first semester on showed GPA's dispersed safely above the level where administrative drop action operates. Those who did not survive were culled early by institutional retention rules. Regular students in this study who were enrolled for the first four semesters earned, from the first semester on mean GPA's of at least 3.7 for men and 3.9 for women.

This explanation does not fit the SEOP data in this study. Their extremely unstable and low average GPA's point to a relaxed retention policy for many SEOP students.

Perhaps the SEOP students require more time in which to change, more time in which to develop the scholastic habits and learning sets that stabilize GPA's within the regularly admitted groups. The lower predictive validity of HSPR for black students (Thomas and Stanley, 1969) may reflect the fact that high school grades for disadvantaged enrollees do not measure to the same extent the grade-getting dispositions and learning sets that characterize the HSPR of customary entering freshmen groups.

However, GPA stability coefficients for SEOP students are not zero. This together with their hazardous mean GPA level implies that many SEOP students must be accruing grade point deficits and will eventually be dropped short of graduation. Many other students must also be hovering

in and out of probationary or possible drop action GPA levels. Unless GPA's stabilize and locate at higher levels than observed in the two groups of SEOP students reported here, these are consequences that will be realized by present grading practices.

Increased selectivity in the admission of SEOP students would permit a more rationale retention policy to be developed. Abler enrollees would show higher mean GPA's, and early, perhaps unavoidable, instability could be tolerated without the formation of a large subset of marginally achieving students.

Increased selectivity requires increased recruitment effort and expenditures. The problem for any single institution is that its recruiting staff is unable to screen all potential candidates; recruitment instead tends to focus on expedient applicant pools and to select on the basis of endorsement rather than competitive merit.

The SEOP recruitment at the University of Illinois has moved to the use of a test score (the ACT) - HSPR combination for selecting SEOP freshmen. But the problem of expanding the size of the applicant pool within which selection is made remains a critical recruitment problem for a single institution, and one which should be attacked at a higher - e.g. state or regional - level. If a statewide census of high school juniors, stratified by economic need and disadvantage, were available to recruiters, each institution could set cut-off scores to define an applicant pool larger than program quotas. Recruiting within the disadvantaged population could be made more selective. Furthermore, the chances of a disadvantaged able student being overlooked by recruiters, as many must be now, would be minimized.

Special coursework grades were predictable. These validities were probably attenuated by inflated grading. Records analyzed in this report showed that in Mathematics 101, in special sections of Rhetoric 101, and in Psychology 105, grade distributions appeared to be located higher than what would customarily be predicted from student input ability measures. Reliable grading is needed, for otherwise, there is little basis to hope for determining whether a student either has mastered content that is taught or whether he is ready to progress in regular coursework. Perhaps external content testing is called for, using standardized achievement tests. Students could be placed into early remedial work and could be allowed to exit remedial coursework on the basis of content examinations. Gain scores would then be a measure of learning outcomes in the special coursework. If sizeable numbers of students were then found not to meet instructional objectives, specific coursework deficiencies could be more clearly identified. This procedure would also remove faculty bias from grading, and instruction would probably become more standardized in the early coursework, since instruction would teach for a test. There is nothing wrong in teaching for a content test, especially when the test measures language and number skills that are required for success in many courses. At present, inflation in

grades and grading unreliability is sufficiently high to cast doubt on whether grades in the special courses reflect learning outcomes.

In summary, the regressions and correlations summarized here confirm, within the SEOP, the general conclusion of Stanley's (1971) review advocating the utility of test measures for assessing academic achievement within black and disadvantaged student populations. The argument rests on efficiency. Valid predictors enable better selection and better placement, with consequent improved success rates. The ease of securing valid test data cheaply also argues for their use -- too many able disadvantaged and black students are probably being overlooked because of inefficient recruitment. The goal of programs for the disadvantaged is to admit and graduate students who otherwise would not attend college. Disregarding valid test data because of a reluctance to admit the existence of individual ability differences within disadvantaged and black populations is a policy that retards the effectiveness of equal opportunity college programs. Furthermore, if a university does not select who it will educate, and if it does not make reliable judgments concerning the individual abilities and achievements of those it does select, then other social institutions will. When the credibility of a university degree diminishes in the marketplace, then individual ability judgments will be made by industry, where unreliable and irrelevant measures are far more apt to be applied.

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